

Amendments to the Claims

1. (Currently Amended) A method of handling events received at
2 sockets in a computer server configured to serve multiple clients, the method comprising:
executing a polling module configured to poll server sockets to detect events
4 received at said sockets;
registering a first plurality of sockets with said polling module for serving the
6 multiple clients, wherein each of said sockets in said first plurality of sockets is
associated with an event consumer and the plurality of sockets includes:
8 a single data delivery socket configured for simultaneously serving media
data to all of the multiple clients; and
10 for each client, a separate control socket configured to receive command
events from the client;
12 notifying a first event consumer associated with a first socket in said first plurality
of sockets when a first event is received at said first socket; and
14 invoking a task configured to facilitate handling of said first event;
wherein a first processor thread is shared among said first plurality of sockets for
16 said polling; and
wherein one or more processor threads are allocated to the execution of tasks
18 invoked by said event consumers.

2. (Original) The method of claim 1, further comprising:
2 registering a second plurality of sockets with said polling module, wherein each
of said sockets in said second plurality of sockets is associated with an event consumer;
4 wherein a second processor thread is shared among said second plurality of
sockets.

3. Cancelled

4. (Currently Amended) The method of claim 1-3, wherein said event
2 consumers are program objects, and each of said event consumers is one of the set of:

a listener consumer configured to handle a connection request event;
4 a connection consumer configured to handle a media streaming command event;
and
6 a receiver consumer configured to handle a media stream quality event;
wherein said listener consumer, said connection consumer and said receiver
8 consumer are derived from a single abstract base class.

5. (Currently Amended) The method of claim 1 3, wherein said first
2 event comprises a connection request from a client; and
wherein said first event consumer is a listener event consumer configured to
4 establish a client connection through a second socket in response to said connection
request.

6. (Currently Amended) The method of claim 1 3, wherein said first
2 event comprises a media streaming command; and
wherein said first event consumer is a connection consumer configured to execute
4 said media streaming command.

7. (Currently Amended) The method of claim 1 3, wherein said first
2 event comprises media stream quality information; and
wherein said first event consumer is a receiver consumer configured to adjust said
4 media stream according to said media stream quality information.

8. (Currently Amended) The method of claim 1 3, wherein said first
2 socket is configured to host connections with multiple clients simultaneously.

9. (Currently Amended) The method of claim 1 3, wherein said first
2 event comprises a request for a media streaming control connection from a first client and
said first event consumer is a listener event consumer, and wherein said invoking a task
4 comprises:
establishing a media streaming control connection with the first client through a

6 second socket configured for media streaming control connections with multiple clients;
wherein said second socket is associated with a connection event consumer
8 configured to handle a media streaming control command.

10. (Currently Amended) The method of claim 9, further comprising:
2 receiving, from the first client at said second socket, a media streaming command
to stream media to the first client; and
4 establishing a media streaming quality connection with the first client through a
third socket configured for media streaming quality connections with multiple clients;
6 wherein said third socket is associated with a receiver event consumer configured
to handle media streaming quality information.

11. (Original) A method of handling events received at a server
2 configured to stream media to clients, wherein processor resources within the server are
allocated in the form of threads, comprising:
4 polling one or more registered server sockets for events received at the server
from clients, wherein each registered socket is associated with an event consumer
6 configured to handle an event received at the registered socket;
receiving a client connection request at a first socket;
8 notifying a first event consumer of the connection request, wherein said first event
consumer is associated with said first socket;
10 registering a second socket configured to receive media streaming commands
through a connection established in response to said client connection request;
12 receiving at said second socket a media streaming command from the client;
notifying a second event consumer of the command, wherein said second event
14 consumer is associated with said second socket; and
issuing one or more tasks configured to execute the media streaming command;
16 wherein a first thread is shared among a first collection of sockets comprising said
first socket and said second socket; and
18 wherein a set of threads is allocated to said one or more tasks.

12. (Original) The method of claim 11, further comprising:
2 registering a third socket configured to receive data concerning the quality of
media being streamed to the client, wherein said third socket is associated with a third
4 event consumer;

wherein said first collection of sockets includes said third socket.

13. (Original) The method of claim 11, wherein said second socket is
2 configured to receive media streaming commands from multiple different clients.

14. (Original) A computer readable storage medium storing instructions
2 that, when executed by a computer, cause the computer to perform a method of handling
events received at a server configured to stream media to clients, wherein processor
4 resources within the server are allocated in the form of threads, the method comprising:
polling one or more registered server sockets for events received at the server
6 from clients, wherein each registered socket is associated with an event consumer
configured to handle an event received at the registered socket;
8 receiving a client connection request at a first socket;
notifying a first event consumer of the connection request, wherein said first event
10 consumer is associated with said first socket;
registering a second socket configured to receive media streaming commands
12 through a connection established in response to said client connection request;
receiving at said second socket a media streaming command from the client;
14 notifying a second event consumer of the command, wherein said second event
consumer is associated with said second socket; and
16 issuing one or more tasks configured to execute the media streaming command;
wherein a first thread is shared among a first collection of sockets comprising said
18 first socket and said second socket; and
wherein a set of threads is allocated to said one or more tasks.

15. Cancelled

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24. (New) A media streaming server configured to stream media to multiple clients, the media streaming server comprising:
 - a set of server sockets, including:
 - for each of the multiple clients, a separate control socket configured to receive media stream command events from the client;
 - a single delivery socket configured to stream the media to the multiple clients simultaneously; and
 - a single quality control socket configured to receive media quality information events from the multiple clients;
 - a poller module configured to:
 - poll one or more sockets in the set of sockets; and
 - when an event is received at a polled socket, pass the event to a consumer object configured to handle the event;
 - a set of consumer object classes derived from a single abstract base class of

consumer objects, wherein the set of consumer object classes includes:

16 a listener object class configured to listen for connection requests from
new clients;

18 a connection object class configured to handle command events received
at polled sockets coupled to the multiple clients; and

20 a receiver object class configured to process data received at a polled
socket; and

22 a set of task objects derived from a single abstract base class of task objects,
wherein the set of task objects includes:

24 a command task object configured to execute a command received as part
of a command event; and

26 a receive data task object configured to read data received at the media
streaming server.

25. (New) The media streaming server of claim 24, further
2 comprising:

 one or more poll tables configured to identify said control sockets, said delivery
4 socket and said quality control socket for polling.

26. (New) The media streaming server of claim 24, wherein a given
2 consumer object derived from one of said consumer object classes is configured to:
 register a socket with said poller when the consumer object is responsible for
4 handling an event received at the socket.

27. (New) The media streaming server of claim 26, wherein the given
2 consumer object is further configured to:
 place a task object in a task queue to handle an event received at the registered
4 socket.

28. (New) The media streaming server of claim 27, further
2 comprising:

4 a first set of processor threads dedicated to executing task objects placed in the
task queue.

29. (New) The media streaming server of claim 28, further
2 comprising:
a second set of processor threads dedicated to polling sockets registered with said
4 poller.

30. (New) The media streaming server of claim 24, wherein the media
2 streaming server:
uses RTSP (Real-Time Streaming Protocol) to receive media stream command
4 events via the control sockets;
uses RTP (Real-time Transfer Protocol) to stream the media via the delivery
6 socket; and
uses RTCP (Real-time Transport Control Protocol) to receive media quality
8 information events via the quality control socket.

31. (New) A method of handling an event received at a media server
2 from one of multiple clients receiving streamed media from the media server, the method
comprising:
4 (a) polling server sockets identified in one or more polltables, wherein one or
more processor threads are dedicated to each polltable for polling sockets identified in the
6 polltable;
(b) executing a first listener object configured to listen at a listener socket for
8 connections from the clients;
(c) adding the listener socket to one of the polltables;
10 (d) in response to receipt of a first client connection at the listener socket:
(1) waking a processor thread dedicated to the polltable that includes
12 the listener socket;
(2) identifying the first listener object as the object responsible for
14 handling events received at the listener socket; and

16 (3) creating a first control socket dedicated to receiving control
 commands from the first client connection;
 18 (e) executing a first connection object configured to accept control commands
 from client connections;
 20 (f) adding the first control socket to one of the polltables;
 22 (g) in response to receipt of a control command at the first control socket:
 (1) waking a processor thread dedicated to the polltable that includes
 the first control socket;
 (2) identifying the first connection object as the object responsible for
 24 handling events received at the first control socket;
 (3) creating a first control task object configured to handle the control
 26 command; and
 (4) executing the first control task object;
 28 (h) streaming the media to the multiple clients simultaneously through a
 single media delivery socket; and
 30 (i) receiving streaming quality information from the multiple clients at a
 single quality control socket.

32. (New) The method of claim 31, wherein (b) comprises:
 2 (1) deriving a listener class of objects from an abstract base class of consumer
 objects; and
 4 (2) instantiating said first listener object from said listener class of objects.

33. (New) The method of claim 31, wherein adding a socket to a
 2 polltable comprises initiating polling of the socket.

34. (New) The method of claim 31, wherein (d) further comprises:
 2 (4) ceasing polling of the listener socket until the first control socket is
 created.

35. (New) The method of claim 31, wherein (g) further comprises:

2 (5) ceasing polling of the first control socket until completion of execution of
the first control task object.

36. (New) The method of claim 31, wherein (g)(4) comprises:
2 placing the first control task object in a task queue, wherein a set of processor
threads is dedicated to executing task objects placed in said task queue.